A Snapshot of Melanoma

Incidence and Mortality Rate Trends

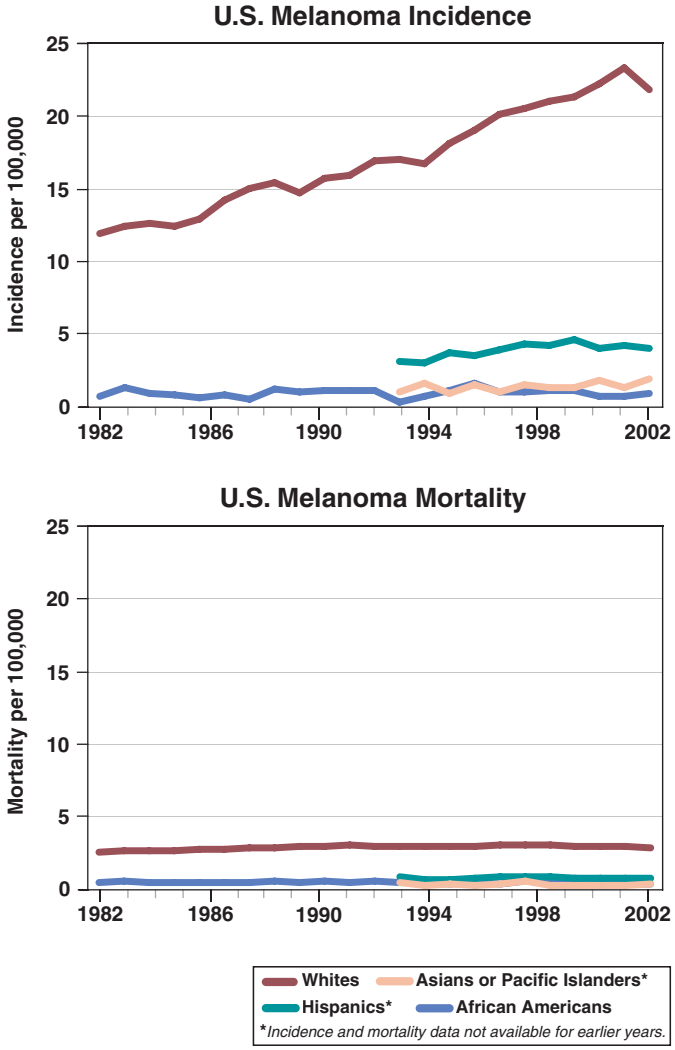
As the most serious form of skin cancer, melanoma is the fifth leading type of new cancer diagnosis in U.S. men and the seventh in U.S. women. The incidence rate for invasive melanoma is highest in Whites, who are 19 times more likely to develop melanoma than African Americans. Men ages 65 or older are twice as likely to develop melanoma as women in the same age group.

It is estimated that 59,580 individuals were diagnosed with melanoma in the United States in 2005, and 7,770 people died as a result of the disease.

Approximately $1.5 billion* is spent in the United States each year on treatment of melanoma.

*In 2004 dollars, as reported in Brown ML, Riley GF, Schussler N, and Etzioni RD. Estimating health care costs related to cancer treatment from SEER-Medicare data. *Medical Care* 2002 Aug; 40 (8 Suppl): IV-104-17.

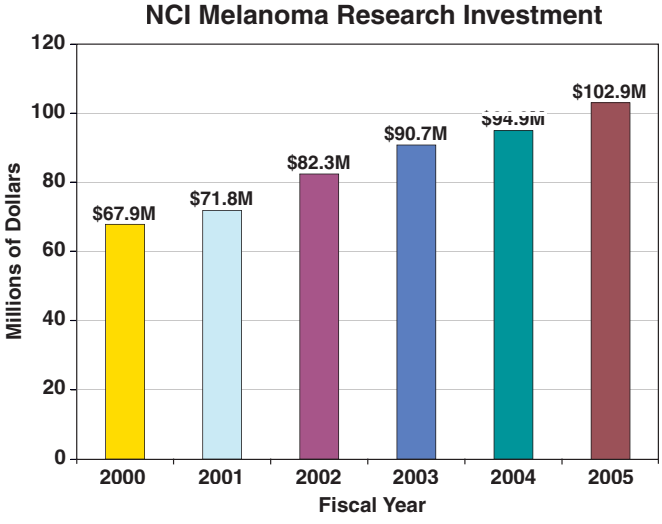
Source for incidence and mortality data: Surveillance, Epidemiology and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at: http://seer.cancer.gov



Trends in NCI Funding for Melanoma Research

The National Cancer Institute's (NCI's) investment in melanoma research has increased from $67.9 million in fiscal year 2000 to an estimated $102.9 million in fiscal year 2005.

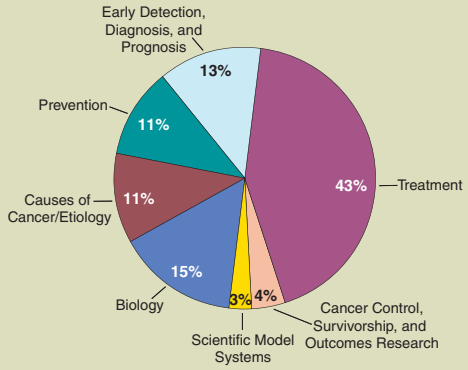
Source: NCI Financial Management Branch
http://www3.cancer.gov/admin/fmb/



Examples of NCI Research Initiatives Relevant to Melanoma

- Two skin cancer-specific **Specialized Programs of Research Excellence (SPOREs)** focus on the treatment and prevention of skin cancers including melanoma. http://spores.nci.nih.gov/current/skin/skin.html
- The **Mouse Models of Human Cancers Consortium** is developing a collection of mouse models that mimic human skin cancers including malignant melanoma. http://emice.nci.nih.gov/emice
- NCI's **Cancer Diagnosis Program (CDP)** is supporting the collection of melanocytic nevi, primary melanomas, and samples from metastatic lesions to construct a Tissue Microarray (TMA) that will be available to the melanoma community in 2006. On October 27 and 28, 2005, the CDP, the SPORE Program, and the Melanoma Research Foundation convened a meeting of melanoma research experts and clinicians to discuss emerging biomarkers in melanoma progression and diagnostic and prognostic markers for which validation in a large cohort of tissues is warranted. Participants also discussed predictive markers and targets for new therapies in melanoma as well as plans for sharing TMA resources with the entire melanoma community. http://www.cancerdiagnosis.nci.nih.gov
- **Clinical Trials** are actively recruiting melanoma patients to test new treatments and treatment combinations. http://cancer.gov/search/clinical_trials

NCI Melanoma Research Portfolio



Percentage of Total Dollars by Scientific Area
Fiscal Year 2004

* Data on training grants are not included in this figure. A description of the relevant research projects can be found at the NCI Cancer Research Portfolio website at http://researchportfolio.cancer.gov

- The first **State of the Science Meeting on Melanoma** brought together prominent scientists and patient advocates to discuss discovery and development of molecular targets for this challenging disease. http://www.webtie.org/sots/html/MelanomaHome.htm
- The **Melanoma Home Page** directs visitors to up-to-date information on melanoma treatment, prevention, genetics, causes, screening, testing, and other topics. http://cancer.gov/cancerinfo/types/melanoma

Selected Opportunities for Advancement of Melanoma Research

- Identify new melanoma susceptibility genes and study the mechanism of melanoma susceptibility due to alterations in the genes already identified. Use this information to improve prevention and early detection of melanoma in high-risk individuals.
- Identify biomarkers with clinical utility that could improve histopathological classification and clinical management of melanoma.
- Identify and test therapeutic interventions that can be used alone or in combination for targeting the molecular changes of melanoma.
- Gain a better understanding of the tumor microenvironment by studying the biology of melanocytes, identifying tumor and/or stromal stem cells, and characterizing the interactions between these cell types during melanoma initiation, invasion, and progression. The role of inflammatory and immune cells in melanoma initiation, invasion, angiogenesis, and progression should also be investigated.